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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,623	11/04/2002	Judy Dixon Ascoli	30GF-1103	4216
23465	7590	03/08/2006	EXAMINER	
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			BHATIA, AJAY M	
			ART UNIT	PAPER NUMBER
			2145	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,623

Applicant(s)

ASCOLI ET AL.

Examiner

Ajay M. Bhatia

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/9/06</u> . | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant argues on page 7 of response the specification in paragraphs 16, 17, 22, teaches "XML schema file that is utilized to facilitate configuring multiple device including PLCs providing a standard format for defining a protocol." Presently XML does not have any type of standard format that is utilized define a protocol, therefore the specification is lacking enablement because it fails to disclose what is a standard format in XML, which can be used to define a protocol.

Then applicant argues the specification teaches Bit Offset. Bit Offset is a terminology, which is related to data represented in a binary format, raw one and zeros, XML is a high level documentary language which does not any standard means by which Bit Offset can be represented, therefore the specification fails to properly enable how this Bit Offset are represented is lacking enablement. Therefore the 112 rejection is maintained.

In response to arguments addressing 101 rejection: Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software

and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized.

In *State Street*, the Federal Circuit examined some of its prior section 101 cases, observing that the claimed inventions in those cases were each for a "practical

application of an abstract idea" because the elements of the invention operated to produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. For example, the court in *State Street* noted that the claimed invention in *Alappat* "constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced 'a useful, concrete and tangible result'—the smooth waveform." *Id.* Similarly, the claimed invention in *Arrhythmia* "constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a useful, concrete and tangible thing—the condition of a patient's heart." *Id.*

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result is "useful, tangible and concrete." The Federal

Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1451.

A claim limited to a machine or manufacture, which has a practical application, is statutory. In most cases, a claim to a specific machine or manufacture will have a practical application. See Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557 (“the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means. This is not a disembodied mathematical concept which may be characterized as an ‘abstract idea,’ but rather a specific machine to produce a useful, concrete, and tangible result.”); and State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02 (“the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”). Also see AT&T, 172 F.3d at 1358, 50 USPQ2d at 1452 (Claims drawn to a long-distance telephone billing process containing mathematical algorithms were held patentable subject matter because the process used the algorithm to produce a useful, concrete, tangible result without preempting other uses of the mathematical principle).

Document submitted in IDS received 1/9/06, disclose a document that is unrelated to the case, the disclosed document discusses lab equipment, which is unrelated to the current application.

Also if applicant elects to continue prosecution applicant is requested to provide a model and additional information.

From applicant arguments it is unclear if the currently claim invention is operable according to specification, therefore a model is request. Also at the time of the demonstration if proved in recorded format, please identify portion from the specification which are shown in the demonstration.

**35 U.S.C. 114 Models, specimens.**

**The Director may require the applicant to furnish a model of convenient size to exhibit advantageously the several parts of his invention. When the invention relates to a composition of matter, the Director may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment. (Amended Nov. 29, 1999, Public Law 106-113, sec. 1000(a)(9), 113 Stat. 1501A-582 S. 1948 sec. 4732(a)(10)(A)).**

Applicant is required to furnish a model of the instant invention. See also 37 CFR 1.91.

Applicant also argues in response to 112 1<sup>st</sup> rejection features that are well known in the art, therefore the examiner has made a request for additional information to inform the examiner of those well known features.

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The information is required to document the level of skill and knowledge in the art of the instant invention. Specifically including the discussed stand formats for defining a protocol for a device (remarks received 1/9/2006, page 7).

The information is required to complete the background description in the disclosure by documenting the Global Data Protocol.

In response to this requirement, please provide copies of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of the instant invention.

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement

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under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

### ***Claim Objections***

Claims 1, and 3-20 are objected to because of the following informalities: Claims fail to clearly point out when the preamble of the claim finishes and the limitations of the claim begin. Commonly after the term comprise, or some other appropriate phrase, it is followed by a semi-colon, so as to signify the transition to the limitations. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:



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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, and 3-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to disclose how a schema of XML can be use to create a schema for a protocol, it fails to provided enough information to reasonably convey to one of ordinary skill in the art. From the information provided one is not able to reproduced the claimed invention. Additionally applicant discusses validation of a XML but does not provided how it occurs within the specification or how the conversion occurs.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 3-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims discusses names for different types of information, information or data is not patentable, since it is not

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disclose in a statutory form and it does not provide a "useful, tangible and concrete" result.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 3-20 are rejected under 35 U.S.C. 103(a) as being obvious over Helms (Patent Publication 2002/0078200) in view of Applicant own admitted prior art (AAPA).

For claim 1, Helms teaches, a method for configuring a programmable logic controller (PLC) having a protocol, said method comprising the step of providing an extensible markup language (XML) schema for the protocol of the PLC. (see Helms, paragraphs 18, 20, a processor is a PLC)

markup language schema further comprises the step of providing an extensible markup language schema for an protocol of the PLC by applying an extensible markup language. (see Helms, paragraphs 18-22)

Helms fails to disclose, a Ethernet Global Data protocol,

APPA, teaches a Ethernet Global Data protocol and (APA, paragraph 2,3)

For claim 2, Helms teaches, a method according to claim 1 further comprising the step of configuring

the PLC utilizing an XML file with grammar at least partially according to the schema. (see Helms, paragraphs 18-22, grammar is an inherent feature of XML)

For claim 3, Helms teaches, a method according to claim 1 further comprising the step of utilizing the schema

Helms fail to clearly disclose, to validate at least one XML file.

It would be obvious, to validate at least one XML file. (see Helms, paragraphs 18-22, DTD are a obvious feature of the XML which are used to validate the schema use in a XML file)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make use of a DTD (Document Type Definition) with Helms method of using a XML webpage to configure a processor device, since it is well know in the art to make use of DTD with XML files. (see XML files Introduction to DTD for an example of how a DTD works)

For claim 4, Helms teaches, a method according to claim 3 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file created by a configuration tool. (see Helms, 18-22, DTD are obvious use to validate an XML file, the website is the configuration tool)

For claim 5, Helms teaches, a method according to claim 1 wherein said step of providing an extensible

markup language schema further comprises the step of providing an extensible markup language schema for a propriety protocol of the PLC. (see Helms, 18, 20, its obvious to convert a CSV file to a XML DTD, visual basic programming language means to accomplish this see SQL Server DTS for an example the propriety protocol is obvious in light of applicants own admitted prior art paragraph 2,3 of the background provides the EGD in a CSV format)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to define the schema used in CSV for a XML DTD since visual basic, a common programming language provided simple implementation to do in combination with Helms, since these are tools available to one of ordinary skill in the art.

For claim 6, Helms teaches, a method according to claim 1 wherein said step of providing an extensible

markup language schema further comprises the step of providing an extensible

markup language schema including definitions for the protocol of the PLC. (see Helms, paragraphs 18-22)

For claim 7, Helms teaches, a method according to claim 4 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file created by a configuration tool for a protocol different than the protocol of the PLC. (see Helms, paragraphs 18-22, a website is a configuration tool)

For claim 8, Helms teaches, a method according to claim 3 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file. (see Helms, paragraphs 18-22, its obvious to convert a CSV file to a XML DTD, java language means to accomplish this see CSV to XML and XML to CSV, other cited in the 892 for an examples)

For claim 9, Helms teaches, a method according to claim 8 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool. (see Helms, paragraphs 18-22, it is obvious to implement parsing of a CSV to XML using

java language means to accomplish this see CSV to XML and XML to CSV, other cited in the 892 for an examples)

For claim 10, Helms teaches, a method according to claim 8 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool for a protocol different than the protocol of the PLC. (see Helms, paragraphs 18-22, e-mails (SNMP) is a protocol different than the protocol of the PLC)

For claim 12, Helms teaches, a method according to claim 11 further comprising the step of utilizing

the schema to validate at least one XML file. (see Helms, paragraphs 18-22, validation is obvious with the use of DTD and XML)

For claim 13, Helms teaches, a method according to claim 12 wherein said step of utilizing the schema

further comprises the step of utilizing the schema to validate at least one XML file created by an Ethernet Global Data configuration tool. (see Helms, paragraphs 18-22, validation is obvious with the use of a DTD and XML) and (APA, paragraph 2,3, since Ethernet Global Data, is configurable via the means of the website which defines the site as XML)

For claim 14, Helms teaches, a method according to claim 1 wherein said step of providing an XML schema

further comprises the step of providing an XML schema for the protocol of the PLC, the schema including at least one of an Build Information element, a Device element, and an Exchange element. (see Helms, paragraphs 18-22, all elements are obvious because they are definable by the user and are just data and are just labels given to data)

For claim 15, Helms teaches, a method according to claim 1 wherein said step of providing an XML schema

further comprises the step of providing an XML schema for the protocol of the PLC, the schema including at least one of an Build Information element, a Device element, and an Exchange element, the Build Information element including at least one of a Name element, a Description element, a Tool element, a Validation Code element, a Last Build Date element, and a Last Build Time element. (see Helms, paragraphs 18-22, all elements are obvious because they are definable by the user and are just data and are just labels given to data)

For claim 16, Helms teaches, a method according to claim 1 wherein said step of providing an XML schema

further comprises the step of providing an XML schema for the protocol of the

PLC, the schema including at least one of an Build Information element, a Device element, and an Exchange element, the Device element including at least one of a Build Information element, a Device Configuration element, and a Device Validation element. (see Helms, paragraphs 18-22, all elements are obvious because they are definable by the user and are just data and are just labels given to data)

For claim 17, Helms teaches, a method according to claim 1 wherein said step of providing an XML schema

further comprises the step of providing an XML schema for the protocol of the PLC, the schema including at least one of an Build Information element, a Device element, and an Exchange element, the Exchange element including at least one of a Build Information element, a Name element, a Description element, a Producer Identifier (ID) element, a Exchange ID element, a Signature element, a Source element, a Destination element, a Period element, and a Timeout element. (see Helms, paragraphs 18-22, all elements are obvious because they are definable by the user and are just data and are just labels given to data)

For claim 18, Helms teaches, a method according to claim 1 wherein said step of providing an XML schema



further comprises the step of providing an XML schema for the protocol of the PLC, the schema including at least one of an Build Information element, a Device element, and an Exchange element, the Build Information element including at least one of a Name element, a Description element, a Tool element, a Validation Code element, a Last Build Date element, and a Last Build Time element, the Device element including at least one of a Build Information element, a Device Configuration element, and a Device Validation element, the Exchange element including at least one of a Build Information element, a Name element, a Description element, a Producer Identifier (ID) element, a Exchange ID element, a Signature element, a Source element, a Destination element, a Period element, and a Timeout element. (see Helms, paragraphs 18-22, all elements are obvious because they are definable by the user and are just data and are just labels given to data)

For claim 19, Helms teaches, a method for configuring a programmable logic controller (PLC) having a

protocol, said method comprising the step of utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool for a protocol different than the protocol of the PLC. (see Helms, (see Helms, paragraphs 18-22, the website is the configuration tool, it is obvious to use java language means to accomplish this see CSV to XML and XML to CSV, other cited in the 892 for an examples)

For claim 20, Helms teaches, a method for configuring a programmable logic controller (PLC) having a

protocol, said method comprising the step of utilizing the schema to validate at least one XML file parsed from a comma separated variable (CSV) file created by a configuration tool. (see Helms, paragraphs 18-22, its obvious to convert a CSV file to a XML DTD, java language means to accomplish this see CSV to XML and XML to CSV, other cited in the 892 for an examples)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached UPSTO 892 (if appropriate).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M. Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason Cardone  
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